

April 23, 2007

Mr. Honesto Gatchalian
California Public Utilities Commission
Energy Division
Tariff Files, Room 4005
DMS Branch
505 Van Ness Avenue
San Francisco, CA 94102

**Re: Substitute Sheets – Advice 2888-E-A
Supplement - Net Energy Metering Compliance Filing Pursuant to
Resolution E- 3992**

Dear Mr. Gatchalian:

Enclosed are an original and 4 copies of substitute sheets and attachments for Advice 2888-E-A. These substitute sheets and attachments are submitted at the request of Energy Division. The sheets and attachments affected are as follows:

26115-E**
26117-E**
26119-E**
Form 79-974
Form 79-1069

Please telephone me at (415) 973-4878 should you have any questions regarding this substitute sheet.

Bernard Lam
Regulatory Relations

cc: Rose de la Torre-PG&E
File—Advice 2888-E-A



SCHEDULE S—STANDBY SERVICE

APPLICABILITY: PG&E will supply electricity and capacity on a standby basis under the terms of this schedule for customers: (1) whose supply requirements would otherwise be delivered through PG&E-owned facilities (including Independent System Operator (ISO)-controlled transmission facilities) but are regularly and completely provided through facilities not owned by PG&E; (2) who at times take auxiliary service (by means of a double-throw switch) from another public utility and who signed Standard Form 79-285 prior to the day after the Commission ends the rate freeze ordered by Assembly Bill 1890; (3) who require PG&E to provide reserve capacity and stand ready at all times to supply electricity on an irregular or noncontinuous basis; or (4) whose nonutility source of generation does not qualify under items (1), (2), or (3) above, but who qualify for and elect to receive back-up service under the provisions of Special Condition 7 below. Any customer under a time-of-use rate schedule using electric generation technology that meets the criteria as defined in Electric Rule 1 for Distributed Energy Resources is exempt from the otherwise applicable Standby Reservation Charges. Customers qualifying for this exemption will continue to pay the applicable energy, reactive demand, customer and meter charges provided for under this rate schedule, and shall be subject to the requirements outlined in Special Condition 11 of this tariff.

Customers whose premises are: (1) supplied only in part by electric energy from a non-utility source of supply, and who do not qualify for or elect to take back-up service under the provisions of Special Condition 7, and/or (2) whose regular non-utility source of supply is subject to an extended outage as defined under Special Condition 9, will receive service under one of PG&E's other applicable rate schedules. However, this service will be provided subject to the provisions of Special Conditions 1 through 6 and 8 through 10 below, and reservation charges as specified under Section 1 will also be applicable. Solar customers who are taking service under PG&E's net metering tariffs or who utilize solar generating facilities which are less than or equal to one megawatt to serve load and who do not sell power or make more than incidental export of power into PG&E's power grid are exempt from standby charges. Non solar customers taking service under one of PG&E net metering schedules may be exempt from standby charges pursuant to PU Code 2827.

(T)
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|
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(T)

TERRITORY: PG&E's entire service territory.

RATES: Total bundled service charges are calculated using the total rates shown below. Direct Access (DA) and Community Choice Aggregation (CCA) charges shall be calculated in accordance with the paragraph in this rate schedule titled Billing.

(Continued)



SCHEDULE S—STANDBY SERVICE
(Continued)

SPECIAL
CONDITIONS:
(Cont'd.)

7. SUPPLEMENTAL STANDBY SERVICE (BACKUP REQUIREMENTS):

- a. Schedule E-19, Schedule E-20 and Schedule E-37 customers whose nonutility source of generation does not regularly supply all the power necessary at their premises may elect to receive the back-up portion of their total service requirement under Schedule S if: (1) the rated capacity of the customer's on-site generator less the capacity of all generating units qualifying for any of PG&E's net energy metering schedules is at least 50 percent of the customer's maximum kW demand; and (2) load profile recorders are installed to separately meter the net on-site generation and the on-site load. If the customer elects instead to receive all of their service under Schedule E-19 or E-20, however, Special Conditions 1 through 6 of this Schedule will apply to the back-up portion of their load, with a Reservation capacity as determined by the net capacity of the on-site generation. (T)
(T)
- b. Supplemental standby service requires the installation of a load profile recorder. PG&E will install load profile recorders, subject to meter availability. The customer shall provide, install, own, and maintain all facilities necessary to accommodate metering equipment specified by PG&E. An additional charge applies for Supplemental Standby Service. A Supplemental Standby Service Meter Charge will be added to the standby customer's bill in addition to the TOU Energy Charges for back-up requirements, specified in the Rates Section. Supplemental standby service customers will also pay the appropriate rate Schedule E-19 or E-20 charges, including the Customer Charge, for their supplemental power use. (D)
(T)

(Continued)



SCHEDULE S—STANDBY SERVICE
(Continued)

SPECIAL
CONDITIONS:
(Cont'd.)

10. NON-TIME-OF-USE METERING: In those cases where PG&E deems it is not cost-effective to install a time-of-use (TOU) meter, PG&E will estimate the customer's kWh usage for each TOU period, and apply all TOU charges to the estimated kWh usage by TOU period. PG&E will estimate the customer's total kWh usage in the billing period to kWh usage within each TOU period based on a percentage breakdown using the ratio of the number of hours in each TOU period to total hours in the billing period.
11. DISTRIBUTED ENERGY RESOURCES EXEMPTION: Public Utilities (PU) Code Sections 353.1 and 353.3, provide for certain exemptions of standby reservation charges for qualifying "distributed energy resources." See Electric Rule 1 for definition of Distributed Energy Resources. Customers qualifying for an exemption from standby charges under PU Code Sections 353.1 and 353.3, as described above, must take service on a TOU schedule in order to receive this exemption (T) until a real-time pricing program, as described in PU Code Section 353.3, is made available. Once available, customers qualifying for the distributed energy resources exemption must participate in the real-time program referred to above. Qualification for and receipt of this distributed energy resources exemption does not exempt the customer from metering charges applicable to TOU and real-time pricing, or exempt the customer from reasonable interconnection charges, non-bypassable charges as required in Preliminary Statement BB - *Competition Transition Charge Responsibility for All Customers and CTC Procurement*, or obligations determined by the Commission to result from participation in the purchase of power through the California Department of Water Resources, as provided in PU Code Section 353.7. (T)
12. MULTIPLE TARIFF FACILITIES: Customers with generators that are comprised of multiple generators qualifying for different tariffs, and with at least one generator that qualifies for a PG&E net energy metering tariff, and where all of the generators are served through the same Point of Common Coupling as defined in PG&E's Rule 21, may be eligible for standby exemption for a portion of their standby requirement. Such exemption will be granted per the Otherwise Applicable rate Schedule (OAS) and per Special Condition 11. The customer will be billed under its OAS, and Special Conditions 1 through 7 of this Schedule S will not apply to the eligible generating portion qualifying for standby exemption. The Standby reservation capacity will be set at a level not to exceed the nominal rated capacity of the non-eligible generating unit(s). Qualification for and receipt of this exemption does not exempt customers with multiple generators under different tariffs from charges applicable to TOU and real-time pricing, or exempt the customer from reasonable interconnection charges, non-bypassable charges and other applicable tariff obligations. (N)

(Continued)

Part 1 – Introduction and Overview

- A. Applicability:** This Generating Facility Interconnection Application (Application) is used to request the interconnection of a Generating Facility to Pacific Gas and Electric Company's (PG&E) Distribution System (over which the California Public Utilities Commission (CPUC) has jurisdiction). Refer to PG&E's Rule 21 to determine the specific requirements for interconnecting a Generating Facility. Capitalized terms used in this Application, and not otherwise defined herein, shall have the same meanings as defined in PG&E's Rule 21 and Rule 1.

Except as noted in the next paragraph, this Application may be used for any Generating Facility to be operated by, or for, a Customer and/or Producer to supplement or serve part or all of its electric energy requirements that would otherwise be provided by PG&E, including "distributed generation", "cogeneration," emergency, backup, and standby generation, and Net Energy Metered Generating Facilities. A simpler, shorter form is also available from PG&E for Net Energy Metered Generating Facilities with a nameplate rating less than 10kW (Form 79-994). This form is available upon request by telephoning 415-972-5676 or on PG&E's website at <http://www.pge.com/gen>. While Customers operating Generating Facilities isolated from PG&E's Distribution System are not obligated to enter into an Interconnection Agreement with PG&E, parts of this Application will still need to be completed to satisfy PG&E's notice requirements for operating an isolated Generating Facility as specified in the California Health and Safety Code Section 119085 (b).

This Application may not be used to apply for interconnecting Generating Facilities used to participate in transactions where all, or a portion of, the electrical output of the Generating Facility is scheduled with the California Independent System Operator. Such transactions are subject to the jurisdiction of the Federal Energy Regulatory Commission (FERC) and require a different application available from PG&E.

This Application is not applicable for incentives and/or rebates offered by the Energy Resources Conservation and Development Commission ("CEC") or the CPUC. Please contact those agencies directly or on their respective websites (www.energy.state.ca.us and www.cpuc.ca.gov).

Guidelines and Steps for Interconnection: This Application must be completed and sent to PG&E along with the additional information indicated in Part 1, Section C below to initiate PG&E's interconnection review of the proposed Generating Facility. An Initial Review fee of \$800 (payable by check or money order to PG&E must accompany the Applications except those Applications for isolated Generating Facilities and Net Energy Metering Generating Facilities. Supplemental Review and Interconnection Study fees may be required for large capacity and/or more complex Generating Facility Interconnections; see PG&E's Rule 21, Section C.1.b. & c. for more information regarding interconnection of a generator to PG&E's Distribution System. Please refer to the California Energy Commission's website: http://www.energy.ca.gov/distgen/interconnection/guide_book.html.

This document is only an Application. Upon acceptance of the Generating Facilities, PG&E will prepare an Interconnection Agreement for execution by the "Producer," the party that will be responsible for the Generating Facility. PG&E may also require an inspection and testing of the Generating Facility and installation of any related Interconnection Facilities prior to giving the Producer written authorization to operate in parallel. **Unauthorized Parallel Operation may be dangerous and may result in injury to persons and/or may cause damage to equipment and/or property for which a Producer/Customer may be liable!**

Please note, other approvals may need to be acquired, and/or other agreements may need to be formed with PG&E or regulatory agencies, such as the Air Quality Management Districts and local governmental building and planning commissions prior to operating a Generating Facility. PG&E's authorization to operate in parallel does not satisfy the need for an Applicant to acquire such other approvals.

- C. Required Documents:** Four (4) copies of this Application and each of the following documents **are required to be submitted** before this application will be processed. Drawings must conform to accepted engineering standards and must be legible. 11"x17" drawings are preferred.
1. A **Single-line drawing** showing the electrical relationship and descriptions of the significant electrical components such as the primary switchgear, secondary switchboard, protective relays, transformers, generators, circuit breakers, with operating voltages, capacities, and protective functions of the Generating Facility, the Customer's loads, and the interconnection with PG&E's Distribution System. Please show the location of all required net generation electric output meter(s) and the A.C. manual operated disconnect switch on the single line drawing.
 2. **Site plans and diagrams** showing the physical relationship of the significant electrical components of the Generating Facility such as generators, transformers, primary switchgear/secondary switchboard, and control panels, the Customer's loads and the interconnection with PG&E's Distribution System. Please show the location of all required net generation electric output meter(s) and the A.C. manual operated disconnect switch on the site plans.
 3. If **transformers** are used to interconnect the Generating Facility with PG&E's Distribution System, please provide transformer nameplate information (voltages, capacity, winding arrangements, connections, impedance, et cetera).
 4. If a **transfer switch** or scheme is used to interconnect the Generating Facility with PG&E Distribution System, please provide component descriptions, capacity ratings, and a technical description of how the transfer scheme is intended to operate.
 5. If **protective relays** are used to control the interconnection, provide protection diagrams or elementary drawings showing relay wiring and connections, proposed relay settings, and a description of how the protection scheme is intended to function.
 6. An Initial Review fee check or money order in the amount of \$800, if applicable, made out to PG&E referencing the electric account number and "Initial Interconnection Review Fee."

GENERATING FACILITY INTERCONNECTION APPLICATION

Part 1 Cont'd – Introduction and Overview

- D. Mailing Instructions, Assistance:** When this application has been completed it may be printed and mailed, along with the required attachments to:

**Pacific Gas and Electric Company
Attn: Manager, Generation Interconnection Services
P.O. Box 770000
Mail Code N7L
San Francisco, California, 94177**

Alternatively, you may contact PG&E at (415) 972-5676 or e-mail at gen@pge.com

Part 2 – Identifying the Generating Facility's Location and Responsible Parties

Project Name:	Date Received:	Generating Facility ID:	Application Expiration Date (Refer to Part 2, Section E)

(For PG&E Use Only)

- A. Customer Electric Account Information** (What electric service will the Generating Facility be interconnected for parallel operation with PG&E? For aggregated electric accounts (under NEMBIO, dairy operations only) provide the primary and all associated accounts/meter information)

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Name shown on PG&E service account Electric Account Number Electric Badge (Meter) Number

NOTE: Customer Electric account must match the customer's utility bill account information.

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Meter Location Street Address City State Zip

- Customer Electric Account Contact Information** (Who is the customer contact for progress updates and/or additional information?)

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Contact Person Company Name

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Phone Fax E-mail

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Mailing Address City State Zip

- B. Project Contact Information** (Who is the project manager for this Generating Facility?)

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Project Contact Person (Optional) Company Name

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Phone Fax E-mail

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Mailing Address City State Zip

- B.1.** Will the Generating Facility be owned by a (third) party other than the name appearing on the PG&E service account in A. above (please check)? ☐ Yes ☐ No

Part 2 Cont'd – Identifying the Generating Facility's Location and Responsible Parties

C.1. Customer - Generating Facility Interconnection Agreement ("GFIA") or Customer Generation Agreement ("CGA") (for 3rd Party Generator on Premises) Information (Please identify the party that will execute the applicable agreement.) This Section is not applicable to Net Energy Metering (NEM) Applicants because PG&E and the Customer, not the 3rd Party if any, must enter into the Net Energy Metering Interconnection Agreement.

Company Name to be entered on GFIA/CGA	Legal Title of Company to be entered on GFIA/CGA
Person Executing the GFIA/CGA	Title of Person Executing the GFIA/CGA

Mailing Address	Phone	E-Mail

C.2. 3rd Party Owner – GFIA Information (Please identify the Party, if known, that will execute the GFIA). This Section is not applicable to Net Energy Metering (NEM) Applicants because PG&E and the Customer, not the 3rd Party if any, must enter into the Net Energy Metering Interconnection Agreement.

Company Name to be entered on GFIA/CGA	Legal Title of Company to be entered on GFIA/CGA
Person Executing the GFIA	Title of Person Executing GFIA
Mailing Address	Phone
	E-Mail

D. Operating Date (What date is this Generating Facility expected to begin operation?)

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E. Expiration Date* (The date the status of this Application is changed to "withdrawn" by PG&E?)

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- The information submitted in this Application will remain active and valid for a period of 12 months from the date the Application was accepted by PG&E as a "completed" Application. If the project has not been interconnected, or that reasonable proof the project is going forward has not been submitted to PG&E by that time, the Application will be considered "withdrawn" and removed from the queue. To the extent that the Initial Review, Supplemental Review, or Detailed Interconnection Study fees have been paid to and the corresponding reviews/study completed by PG&E, Applicant will only be entitled to a return of one-half of the Initial Review fee of \$400. All other fees will be forfeited.

Part 2 Cont'd – Electing Interconnection Cost Responsibilities
F. Estimated Versus Actual Cost Responsibility

Under Rule 21 Applicants can elect estimated or actual costs for (1) detailed interconnection studies, and/or (2) Interconnection Facilities and distribution system modifications. This election must be made at the time of application submission. Under both cost options, an estimate is prepared. If the Applicant elects the actual cost option, there will be a true-up after the completion of the work. If actual costs exceed the original estimated amounts, Applicant will be responsible for costs above the estimated amounts. Conversely, if actual costs are less than the original estimated amounts, PG&E will refund the difference.

Applicants seeking interconnection under PG&E's Net Energy Metering tariffs are not responsible for Initial Review, Supplemental Review and Detailed Interconnection Study fees, nor for distribution system modifications' costs.

Selection of detailed interconnection study cost responsibility* (Non-NEM only):

____ **Estimated Cost**

____ **Actual Cost**

Selection of Interconnection Facilities and distribution system modifications' (if applicable) cost responsibility*:

____ **Estimated Cost**

____ **Actual Cost**

* **Note:** If no selections are made, estimated cost responsibility will apply.

Part 3 - Describing the Generating Facility and Host Customer's Electrical Facilities

A.
(MP&I)

Indicate the operating mode of the Generating Facility

operating mode
options:

__1__2__3
(Choose one)

Instructions and Notes

Choose from the following operating mode options:

1. **Parallel Operation:** The Generating Facility will interconnect and operate "in parallel" with PG&E's Distribution System for more than one (1) second.
2. **Momentary Parallel Operation (MP):** The Generating Facility will interconnect and operate on a "momentary parallel" basis with PG&E's Distribution System for a duration of one (1) second or less through transfer switches or operating schemes specifically designed and engineered for such operation.
3. **Isolated Operation (I):** The Generating Facility will be "isolated" and prevented from becoming interconnected with PG&E's Distribution System through a transfer switch or operating scheme specifically designed and engineered for such operation.

Part 3 – Cont'd - Describing the Generating Facility and Host Customer's Electrical Facilities

If the answer is operating mode option 1, "parallel operation," please supply all of the information requested for the Generating Facility. Be sure to supply adequate information including diagrams and written descriptions regarding the protective relays that will be used to detect faults or abnormal operating conditions on PG&E's Distribution System.

If the answer is operating mode option 2, "momentary parallel operation," only questions A, E and F of this Part 3 and questions A, B, E, F, I, L, M, N, and S of Part 4 need be answered. Be sure, however, to supply adequate information including diagrams and written descriptions regarding the switching device or scheme that will be used to limit the parallel operation period to one second or less. Please also describe the back up or protective device and controls that will trip the Generating Facility should the transfer switch or scheme not complete the transfer in one second or less.

If the answer is operating mode option 3, "Isolated Operation," only questions A, E, and F of this Part 3 and questions A, B, F, and S of Part 4 need be answered. Be sure, however, to supply adequate information including diagrams and written descriptions regarding the isolating switching device or scheme that will be used to prevent the Generating Facility from operating in parallel with PG&E's Distribution System.

B.

*Parallel
Operation
Applications
Only*

If the Answer to Section A above was operating mode option 1, please indicate the type of agreements that are being requested with this Application. If operating mode option 2 or 3 was selected, please skip to questions E and F.

If agreement options 2, 3, 5, 7, 8, 9, or 10 to this Section B are chosen, please provide an estimate of the maximum kW the Generating Facility is expected to export to PG&E's Distribution System. If PG&E determines that the amount of power to be exported is significant in relation to the capacity available on its Distribution System, it may request additional information, including time of delivery or seasonal kW/kWh estimates.

agreement options:

 1 2 3 4 5
 6 7 8 9 10
(Choose all that apply)

Maximum kW

Instructions and Notes

Sample agreements are available from PG&E for review. Choose from the following ten (10) agreement options:

Customer Owned Generating Facility (non-NEM)

1. **A Generating Facility Interconnection Agreement (Form 79-973)** that provides for parallel operation of the Generating Facility, but does not provide for exporting power to PG&E's Distribution System. This non-export agreement, however does allow the occasional and uncompensated export of energy to PG&E's Distribution System for less than 2 seconds in duration.
2. **A "Qualifying Facility" Power Purchase Agreement** that provides for parallel operation of the Generating Facility, and exporting energy to PG&E's Distribution System for sale to PG&E. This option is available only to "Qualifying Facilities" with a total Nameplate Capacity of 100 kW or less. See Question F for the definition of a Qualifying Facility. (This type of agreement has not yet been developed by PG&E or approved by the CPUC. Check with PG&E for availability).
3. **A Generating Facility Interconnection Export Addendum (Form 79-1070)** that provides for parallel operation of the Generating Facility and the occasional, continuous, non-compensated, export of inverter-based technology solar and wind energy, 1 MW or less to PG&E's Distribution System. Continuous export is export greater than 60 seconds in duration. This addendum must be executed in concert with Agreement 1.

Third Party Owned Generating Facility (non-NEM)

4. **A Generating Facility Interconnection Agreement (Form 79-988)** that provides for parallel operation of the 3rd Party owned Generating Facility, but does not provide for exporting energy to PG&E's Distribution System. This non-export agreement, however does allow the occasional and uncompensated export of energy to PG&E's Distribution System for less than 2 seconds in duration.
5. **A "Qualifying Facility" Power Purchase Agreement** that provides for parallel operation of the 3rd Party owned Generating Facility, and exporting energy to PG&E's Distribution System for sale to PG&E. This option is available only to "Qualifying Facilities" with a total Nameplate Capacity of 100 kW or less. See Question F for the definition of a Qualifying Facility. (This type of agreement has not yet been developed by PG&E or approved by the CPUC. Check with PG&E for availability).
6. **A Customer Generation Agreement (Form 79-992)** that defines the relationship between the Customer whose name appears on PG&E's electric service account. This agreement must be executed in addition to agreements 4 and 5. This non-export agreement, however does allow the occasional and uncompensated export of energy to PG&E's Distribution System for less than 2 seconds in duration.

Part 3 Cont'd - Describing the Generating Facility and Host Customer's Electrical Facilities

Net Energy Metering Generating Facility

If you wish to have your Generating Facility participate on one of PG&E's Net Energy Metering tariffs, following your bi-directional meter installation, your meter and disconnect switch must be installed in a safe PG&E accessible location and remain unobstructed by plants, structures, locked gates or pets. Meter and disconnect switch access must be maintained at all times for your safety and PG&E's electrical system safety. Additionally, unencumbered access is required for meter reading, system maintenance, and operations. Any animals owned by the customer, for example pet dogs, should be kept clear from these areas to avoid hindering PG&E service personnel from completing their work.

Are there any meter access issues? Please check all that apply to avoid interconnection delays.

- ☐ Dog, or other animals at Residence
- ☐ Locked Gate
- ☐ Shrubs or Bushes
- ☐ Other (please explain) _____

7. **A Net Energy Metering Agreement: Solar and Wind (Form 79-978)**, that provides for parallel operation of the Generating Facility, and exporting energy to PG&E's Distribution System for credit under the terms of PG&E's Net Energy Metering tariffs for solar or wind Generating Facilities of 1MW or less, other than residential or small commercial Generating Facilities of 10 kW or less. This agreement also requires submittal of an expanded net energy metered supplemental application. This option is available only to eligible Generating Facilities as defined in PG&E's Net Energy Metering tariffs.

8. **A Net Energy Metering Agreement: Bio-Gas (Form 79-997)**, that provides for parallel operation of the Generating Facility, and exporting energy to PG&E's Distribution System for credit under the terms of PG&E's Net Energy Metering tariffs for qualifying bio-gas digester Generating Facilities. This option is available only to eligible Generating Facilities as defined in PG&E's Net Energy Metering tariffs

9. **A Net Energy Metering Agreement: Fuel Cell (Form 79-1010)**, that provides for parallel operation of the Generating Facility, and exporting energy to PG&E's Distribution System for credit under the terms of PG&E's Net Energy Metering tariffs for fuel-cell Generating Facilities. This option is available only to eligible Generating Facilities as defined in PG&E's Net Energy Metering tariffs

10. **Multiple Tariff Generating Facility Agreement (Form 79-1069)**, that provides for the parallel operation of a Generating Facility that utilizes generators eligible for service under NEM or other applicable Net Energy Metering tariffs that are electrically connected behind the same Point of Common Coupling with generators not eligible to receive service under the NEM tariff.

11. **Other, please describe:** _____

C. <i>Parallel Operation Applications Only</i>	<p>If the answer to Section B above was agreement option 1 or 4, please indicate the protection option that will be used to prevent energy from being exported to PG&E's Distribution System.</p> <p>If protection option 3 to this Section C is selected, please provide the continuous current rating of the host Customer facility's service entrance equipment (service panel rating):</p> <p>If Protection Option 4 to this Section C is selected, please provide the minimum load of the host Customer facility:</p>	<p>Protection Option: <div style="text-align: center;"> <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input type="checkbox"/> 3 <input type="checkbox"/> 4 (Choose one) </div> <div style="text-align: center;"> _____ Amps </div> <div style="text-align: center;"> _____ kW </div> </p>
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Part 3 Cont'd - Describing the Generating Facility and Host Customer's Electrical Facilities

Instructions and Notes

Refer to PG&E's Rule 21, Section I.2., for additional information as to how to answer this question. If the Generating Facility will never export power to PG&E's Distribution System, a simpler, lower cost, protection scheme may be used to control the interface between the Generating Facility and PG&E's Distribution System. Choose from the following four options:

1. A reverse-power protection device will be installed to measure any export of power and trip the Generating Facility or open an intertie breaker to isolate the Generating Facility if limits are exceeded.
2. An under-power protection device will be installed to measure the inflow of power and trip or reduce the output of the Generating Facility if limits are not maintained.
3. The Generating Facility Interconnection Facility equipment has been certified as Non-Islanding and the incidental export of power will be limited by the design of the interconnection. If this option is to be used, the continuous ampere rating of the service entrance equipment (service panel rating) that is used by the host Customer facility must be stated in the space provided above.
4. The Gross Nameplate Rating of the Generating Facility will not exceed 50% of the host Customer facility's minimum electrical load. If this option is to be used, the minimum load of the host Customer facility must be stated in the space provided above.

Note: With the approval of PG&E, a Producer that wishes to retain the option to export power from a Generating Facility to PG&E's Distribution System may use a different protection scheme that provides for the detection of faults and other abnormal operating conditions.

D.

*Parallel
Operation
Applications
Only*

What is the maximum 3-phase fault current that will be contributed by the Generating Facility to a 3-phase fault at the Point of Common Coupling (PCC)? (If the Generating Facility is single phase in design, please provide the contribution for a line-to-line fault.)

Please indicate the short circuit interrupting rating of the host Customer facility's service panel:

_____ Amps

_____ Amps

Instructions and Notes

Refer to PG&E's Rule 21 Sections D.4.a. and I.3.g. for significance and additional information. To determine this value, any transformers and/or significant lengths of interconnecting conductor used between each of the Generators (if there are more than one) that make up the Generating Facility and the PCC must be taken into account. The details, impedance, and arrangement of such transformers and interconnecting conductors should be shown on the single-line diagram that is provided. Consult an electrical engineer or the equipment supplier if assistance is needed in answering this question.

It is expected that most Applicants will want to reserve the flexibility to operate any or all of their Generators in parallel. If the design of the proposed Generating Facility limits the amount of generation that may be interconnected at any time to PG&E's Distribution System, please describe the assumptions used in calculating the maximum fault current contribution value.

E.
(MP&I)

Please indicate how this Generating Facility will be operated.

☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6

(Please choose all options that may apply.)

Choose from the following six operation options:

1. **Combined Heat and Power or Cogeneration** – Where the operation of the Generating Facility will produce thermal energy for a process other than generating electricity.
2. **Peak Shaving/Demand Management** – Where the Generating Facility will be operated primarily to reduce electrical demands of the host Customer facility during PG&E's "peak pricing periods".
3. **Primary Power Source** – Where the Generating Facility will be used as the primary source of electric power and power supplied by PG&E to the host Customer's loads will be required for supplemental, standby, or backup power purposes only.
4. **Standby / Emergency / Backup** – Where the Generating Facility will normally be operated only when PG&E's electric service is not available.
5. **Net Energy Metering** – Where the Generating Facility qualifies and receives service under PG&E's Net Energy Metering tariffs. For applicants for the Net Energy Metering of a solar and/or wind generating facility 1000kW or less, other than residential or small commercial customers, a supplemental application (Form Number 79-998) is also required.
6. **Multiple Tariff** - Generating Facilities that have a combination of non-Net Energy Metering (non-NEM) generator(s) and a Net Energy Metering (NEM) generator(s). Check one of the following four options on the next sheet.

GENERATING FACILITY INTERCONNECTION APPLICATION

Part 3 Cont'd - Describing the Generating Facility and Host Customer's Electrical Facilities

For **Multiple Tariff** Generating Facilities, check one of the following:

- ☐ New facility installing non-NEM generator(s) and NEM generator(s) at the same time.
- ☐ Existing facility with non-NEM generator(s) and planning to add NEM generator(s). Please provide data for the table below.
- ☐ Existing facility with NEM generator(s) and planning to add non-NEM generator(s). Please provide data for the table below.
- ☐ Existing facility with NEM generator(s) and planning to add NEM generator(s) under a different NEM tariff. Please provide data for the table below.

Instructions (From Part 4)	Generator Information	Existing Generator Type	Existing Generator Type	New Generator Type	New Generator Type	Generating Facility Totals
#	Please indicate the number of each "type" of Generator being installed:					
A	Gen/Inverter Manufacturer					
B	Generator/Inverter Model					
C	Gen/Inverter software Version					
D	Is the Gen/Inverter certified	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	
E	Generator design	<input type="checkbox"/> Synch <input type="checkbox"/> Induct. <input type="checkbox"/> Inverter	<input type="checkbox"/> Synch <input type="checkbox"/> Induct. <input type="checkbox"/> Inverter	<input type="checkbox"/> Synch <input type="checkbox"/> Induct. <input type="checkbox"/> Inverter	<input type="checkbox"/> Synch <input type="checkbox"/> Induct. <input type="checkbox"/> Inverter	
F	Gross Nameplate Rating					
I	Operating Voltage					
J	Power Factor rating					
K	PF Adjustment Range					
L	Wiring Configuration					

GENERATING FACILITY INTERCONNECTION APPLICATION

Part 3 Cont'd - Describing the Generating Facility and Host Customer's Electrical Facilities

Instructions From Part 4	Generator Information	Existing Generator Type	Existing Generator Type	New Generator Type	New Generator Type
M (Momentary Parallel)	3-Phase Winding Configuration (Choose One)	__ 3 Wire Delta __ 3 Wire Wye __ 4 Wire Wye	__ 3 Wire Delta __ 3 Wire Wye __ 4 Wire Wye	__ 3 Wire Delta __ 3 Wire Wye __ 4 Wire Wye	__ 3 Wire Delta __ 3 Wire Wye __ 4 Wire Wye
N (Momentary Parallel)	Neutral Grounding System Used (Choose One)	__ Ungrounded __ Solidly Grounded __ Ground Resistor _____ Ohms	__ Ungrounded __ Solidly Grounded __ Ground Resistor _____ Ohms	__ Ungrounded __ Solidly Grounded __ Ground Resistor _____ Ohms	__ Ungrounded __ Solidly Grounded __ Ground Resistor _____ Ohms
O	<i>For Synchronous Generators Only:</i> Synchronous Reactance: _____ (Xd %) Transient Reactance: _____ (X'd %) Subtransient Reactance: _____ (X''d %)	_____ (Xd %) _____ (X'd %) _____ (X''d %)	_____ (Xd %) _____ (X'd %) _____ (X''d %)	_____ (Xd %) _____ (X'd %) _____ (X''d %)	_____ (Xd %) _____ (X'd %) _____ (X''d %)
P	<i>For Induction Generators Only:</i> Locked Rotor Current: _____ (Amps) OR Stator Resistance: _____ (%) Stator Leakage Reactance: _____ (%) Rotor Resistance: _____ (%) Rotor Leakage Reactance: _____ (%)	_____ (Amps) _____ (%) _____ (%) _____ (%) _____ (%)	_____ (Amps) _____ (%) _____ (%) _____ (%) _____ (%)	_____ (Amps) _____ (%) _____ (%) _____ (%) _____ (%)	_____ (Amps) _____ (%) _____ (%) _____ (%) _____ (%)
Q	Short Circuit Current Produced by Generator:	_____ (Amps)	_____ (Amps)	_____ (Amps)	_____ (Amps)
R	<i>For Generators that are Started as a "Motor" Only</i> 1. In-Rush Current: 2. Host Customer's Service Entrance Panel (Main Panel) Continuous Current Rating:	_____ (Amps) _____ (Amps)	_____ (Amps) _____ (Amps)	_____ (Amps) _____ (Amps)	_____ (Amps) _____ (Amps)
S (Momentary Parallel & Isolated)	Prime Mover Type: (Circle One)	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15	1 2 3 4 5 6 7 8 9 10 11 12 13 14 15

Part 3 Cont'd - Describing the Generating Facility and Host Customer's Electrical Facilities

F.
(MP&I)

Please indicate if Qualifying Facility Status will be obtained from the FERC for this Generating Facility.

☐ Yes

☐ No

Instructions and Notes

Parties operating Generating Facilities complying with all of the requirements for qualification as either a small power production facility or cogeneration facility pursuant to the regulations of the FERC (18 Code of Federal Regulations Part 292, Section 292.203 et seq.) implementing the Public Utility Regulatory Policies Act of 1978 (16 U.S.C.A. Section 796, et seq.), or any successor requirements for "Qualifying Facilities," may seek certification from FERC to have the Generating Facility designated as a Qualifying Facility or "QF." In summary, QF's are Generating Facilities using renewable or alternative fuels as a primary energy source or facilities that utilize the thermal energy given off by the generation process for some other useful purpose. QF's enjoy certain rights and privileges not available to non-QF Generating Facilities.

QF status is not required to interconnect and operate in parallel with PG&E's Distribution System.

G.

Please indicate if Generating Facility will meet the annual Efficiency and Operating Standards of PUC Code 218.5(Applicable to Cogeneration Only)

☐ Yes

☐ No

☐ N/A

Part 4 – Instructions for Describing the Generators

These instructions will assist the Applicant in completing the Part 3's Generator Information.

Generator Information		Instructions and Comments
#	Please indicate the number of each "type" of Generator being installed:	Please provide the following information for each Generator "type". Be sure all Generators classified as one "type" are identical in all respects. If only one type of Generator is to be used, only one column needs to be completed. Please be sure the information in the "Totals" column is correct and reflects the total number of Generator units to be installed.
A	Generator/Inverter Manufacturer	Enter the brand name of the Generator.
B	Generator/Inverter Model	Enter the model name or number assigned by the manufacturer of the Generator.
C	Generator/Inverter Software Version	If this Generator's control and or protective functions are dependent on a "software" program supplied by the manufacturer of the equipment, please provide the version or release number for the software that will be used.
D	Is the Generator Certified by a Nationally Recognized Testing Laboratory (NRTL) according to Rule 21?	Answer "Yes" only if the Generator manufacturer can or has provided certification data. See PG&E's Rule 21, Section J for additional information regarding Generator certification.

Part 4 – Instructions for Describing the Generators

	Generator Information	Instructions and Comments
E	Generator Design	Please indicate the design of each Generator. Designate “Inverter” anytime an inverter is used as the interface between the Generator and the electric system regardless of the primary power production/storage device used.
F	Gross Nameplate Rating (kVA)	This is the capacity value normally supplied by the manufacturer and stamped on the Generator’s “nameplate”. This value is not required where the manufacturer provides only a “kW” rating. However, where both kVA and kW values are available, please indicate both.
G	Gross Nameplate Rating (kW)	This is the capacity value normally supplied by the manufacturer and stamped on the Generator’s “nameplate”. This value is not required where the manufacturer provides only a “kVA” rating. However, where both kVA and kW values are available, please indicate both.
H	Net Nameplate Rating (kW)	This capacity value is determined by subtracting the “auxiliary” or “station service” loads used to operate the Generator or Generating Facility. Applicants are not required to supply this value but, if it is not supplied, applicable standby charges may be based on the higher “gross” values.
I	Operating Voltage	This value should be the voltage rating designated by the manufacturer and used in this Generating Facility. Please indicate phase-to-phase voltages for 3-phase installations. See PG&E’s Rule 21, Section D.2.b. for additional information.
J	Power Factor Rating	This value should be the nominal power factor rating designated by the manufacturer for the Generator. See PG&E’s Rule 21, Section D.2.i. for additional information.
K	PF Adjustment Range	Where the power factor of the Generator is adjustable, please indicate the maximum and minimum operating values. See PG&E’s Rule 21, Section D.2.i.
L	Wiring Configuration	Please indicate whether the Generator is a single-phase or three-phase device. See PG&E’s Rule 21, Section D.3.
M	3-Phase Winding Configuration	For three-phase generating units, please indicate the configuration of the Generator’s windings or inverter systems.
N	Neutral Grounding	Wye connected generating units are often grounded – either through a resistor or directly, depending upon the nature of the electrical system to which the Generator is connected. If the grounding method used at this facility is not listed, please attach additional descriptive information.

Part 4 – Instructions for Describing the Generators

	Generator Information	Instructions and Comments
O	<i>For Synchronous Generators Only:</i>	If the Generator is of a “synchronous” design, please provide the synchronous reactance, transient reactance, and subtransient reactance values supplied by the manufacturer. This information is necessary to determine the short circuit contribution of the Generator and as data in load flow and short circuit computer models of PG&E’s Distribution System. If the Generator’s Gross Nameplate Capacity is 10 MW or greater, PG&E may request additional data to better model the nature and behavior of the Generator with relation to its Distribution System.
P	<i>For Induction Generators Only:</i>	If the Generator is of an “induction” design, please provide the “locked rotor current” value supplied by the manufacturer. If this value is not available, the stator resistance, stator leakage reactance, rotor resistance, rotor leakage reactance values supplied by the manufacturer may be used to determine the locked rotor current. If the Generator’s Gross Nameplate Capacity is 10 MW or greater, PG&E may request additional data to better model the nature and behavior of the Generator with relation to its Distribution System.
Q	Short Circuit Current Produced by Generator	Please indicate the current each Generator can supply to a three-phase fault across its output terminals. For single phase Generators, please supply the phase-to-phase fault current.
R	<i>For Generators that are Started as a “Motor” Only:</i> 1. In-Rush Current 2. Host Customer’s Service Entrance Panel (Main Panel) Continuous Current Rating	This information is needed only for Generators that are started by “motoring” the generator. See PG&E’s Rule 21, Section I.3.e. for significance and additional information. If this question was answered in Part 3, question C of this Application, it need not be answered here.
S	Prime Mover Type	Please indicate the type and fuel used as the “prime mover” or source of energy for the Generator. 1 = Internal Combustion Engine – Natural Gas 2 = Internal Combustion Engine – Diesel Fueled 3 = Internal Combustion Engine - Other Fuel 4 = Microturbine– Natural Gas 5 = Microturbine – Other Fuel 6 = Combustion Turbine Natural Gas 7 = Combustion Turbine - Other Fuel 8 = Steam Turbine 9 = Photovoltaic Panels 10 = Solar-thermal engine 11 = Fuel Cell– Natural Gas 12 = Fuel Cell– Other Fuel 13 = Hydroelectric Turbine 14 = Wind Turbine 15 = Other (please describe)



WE DELIVER ENERGY.™

This Generating Facility Interconnection Agreement (Multiple Tariff) ("Agreement") is entered into by and between _____ ("Producer"), and Pacific Gas and Electric Company ("PG&E") a California Corporation. Producer and PG&E are sometimes also referred to in this Agreement jointly as "Parties" or individually as "Party." In consideration of the mutual promises and obligations stated in this Agreement and its attachments, the Parties agree as follows:

1. SCOPE AND PURPOSE

- 1.1 This Agreement provides for Producer to interconnect and operate a Generating Facility in parallel with PG&E's Distribution System to serve the electrical loads at the location identified in Section 2.4 (or for the qualifying energy where permitted under Section 218 of the California Public Utilities Code ("PUC"). The Generating Facility may be any combination of "Eligible customer-generators" ("Eligible Generator(s)") as defined in PU Code Section 2827 through 2827.10. and/or other Generator(s) ("Non-Eligible Generator(s)"). Eligible customer-generators can consist of any of the following technologies: solar, wind, biogas digester or fuel cell.
- 1.2 This Agreement provides for Producer to operate the Eligible Generator(s) pursuant to the provisions of Section 2827 et seq. of the PU Code and the applicable PG&E tariffs for net energy metering. This Agreement also provides for Producer to operate its Non-Eligible Generator(s). This Agreement does not provide for retail electrical service by PG&E to Producer. Such arrangements must be made separately between PG&E and Producer.
- 1.3 This Agreement does not address Producer's account billing and payment for energy consumption. For the Generating Facility as specified in Section 2 of this Agreement, please refer to the applicable PG&E net-energy-metered (NEM) tariff schedules for billing and payment protocol,

2. SUMMARY AND DESCRIPTION OF PRODUCER'S GENERATING FACILITY

- 2.1 A description of the Generating Facility, including a summary of its significant components and a single-line diagram showing the general arrangement of how Producer's Generating Facility and loads are interconnected with PG&E's Distribution System, are attached to and made a part of this Agreement. (Supplied by Producer as Appendix A).
- 2.2 Generating Facility identification number: _____ (Assigned by PG&E)
- 2.3 Producer's electric service account number: _____ (Assigned by PG&E)

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- 2.4 Name and address used by PG&E to locate the electric service account used to interconnect the Generating Facility with PG&E's Distribution System:

Name: _____

Address: _____

City/Zip Code: _____

- 2.5 The Gross Nameplate Rating of the Generating Facility is:

2.5.1 Eligible Generator(s):

Solar: _____ kW

Wind: _____ kW

Biogas Digester: _____ kW

Fuel Cell: _____ kW

2.5.2 Non-Eligible Generator(s): _____ kW

2.5.3 **Total Gross** Nameplate Rating of the Generating Facility: _____ kW

- 2.6 The Net Nameplate Rating of the Generating Facility is:

2.6.1 Eligible Generator(s):

Solar: _____ kW

Wind: _____ kW

Biogas Digester: _____ kW

Fuel Cell: _____ kW

2.6.2 Non-Eligible Generator(s): _____ kW

2.6.3 **Total Net** Nameplate Rating of the Generating Facility: _____ kW

- 2.7 The maximum level of power that may be exported by the Generating Facility to PG&E's Distribution System is expected to be:

2.7.1 Eligible Generator(s):

Solar: _____ kW

Wind: _____ kW

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Biogas Digester: _____ kW

Fuel Cell: _____ kW

2.7.2 Non-Eligible Generator(s):
_____ kW

2.7.3 **Total maximum level of power** that may be exported by the
Generating Facility: _____ kW

2.8 For the purpose of securing the Competition Transition Charge exemption available under Section 372 of the California Public Utilities Code ("PUC"), Producer hereby declares that the portion of the Generating Facility that is generating in a combined heat and power mode ☐ does / ☐ does not meet the requirements for "Cogeneration" as such term is used in Section 218.5 of the California Public Utilities Code.

2.9 The Generating Facility's expected date of Initial Operation is _____.
The expected date of Initial Operation shall be within two years of the date of this Agreement.

2.10 For the purpose of securing certain tariff charge exemptions available under the PU Code, Producer hereby declares the following for each Generator technology of the Generating Facility:

Requirements for "Distributed Energy Resource Generation" as such term is used in Section 353.1 of the PU Code

Solar: are met ☐ are not met ☐

Wind: are met ☐ are not met ☐

Biogas Digester: are met ☐ are not met ☐

Fuel Cell: are met ☐ are not met ☐

Other technology: are met ☐ are not met ☐

2.11 What applicable rate schedule, known as the "otherwise applicable schedule" will be selected for the net-energy-metering account(s):

3. DOCUMENTS INCLUDED; DEFINED TERMS

3.1 This Agreement includes the following exhibits which are specifically incorporated herein and made a part of this Agreement.

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- Appendix A- Description of Generating Facility and Single-Line Diagram (Supplied by Producer)
- Appendix B- Web-site references to Rules 2 and 21 and other selected rules and tariffs of PG&E (Supplied by PG&E)
- Appendix C- A Copy of PG&E's Agreement for Installation of Allocation of Special Facilities for Parallel Operation of Nonutility-Owned Generation and/or Electrical Standby Service (Form 79-280) ("Special Facility Agreement"), if applicable, (Formed by the Parties)
- Appendix D - Producer's warranty that the Generating Facility meets the requirements for a "Cogeneration facility" pursuant to Section 218.5 of the PU Code (When applicable)
- Appendix E - Producer's warranty that the Generating Facility meets the requirements for "Distributed Energy Resources Generation" as defined in Section 353.1 of the PU Code (When applicable)
- Appendix F - Listing of eligible service accounts, as defined in PG&E's Schedule NEMBIO to be included in Net Energy Metering calculations (When applicable)
- Appendix G - Producer's warranty that it meets the requirements for an "Eligible Biogas Digester Electrical Generating Facility," (applicable Generator(s) only) as defined in Section 2827.9 of the PU Code (When applicable).

- 3.2 When initially capitalized, whether in the singular or in the plural, the terms used herein shall have the meanings assigned to them either in this Agreement or in PG&E's Rule 21, Section H.

4. TERM AND TERMINATION

- 4.1 This Agreement shall become effective as of the last date entered in Section 16, below. The Agreement shall continue in full force and effect until the earliest date that one of the following events occurs:
- (a) The Parties agree in writing to terminate the Agreement, or
 - (b) Unless otherwise agreed in writing by the Parties, at 12:01 A.M. on the day following the date the electric service account through which Producer's Generating Facility is interconnected to PG&E's Distribution System is closed or terminated, or
 - (c) At 12:01 A.M. on the 61st day after Producer or PG&E provides written Notice pursuant to Section 9 below to the other Party of Producer's or PG&E's intent to terminate this Agreement.

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- 4.2 Producer may elect to terminate this Agreement pursuant to the terms of Section 4.1(c) for any reason. PG&E may elect to terminate this Agreement pursuant to the terms of Section 4.1(c) for one or more of the following reasons:
- (a) A change in applicable rules, tariffs, and regulations, as approved or directed by the California Public Utilities Commission "Commission," or a change in any local, state or federal law, statute or regulation, either of which materially alters or otherwise affects PG&E's ability or obligation to perform PG&E's duties under this Agreement; or,
 - (b) Unless otherwise agreed to in writing by the Parties, Producer fails to take all corrective actions specified in PG&E's Notice that Producer's Generating Facility is out of compliance with the terms of this Agreement within the time frame set forth in such Notice; or,
 - (c) Producer fails to interconnect and operate the Generating Facility per the terms of this Agreement prior to 120 days after the date set forth in Section 2.9, above, as the Generating Facility's expected date of Initial Operation; or,
 - (d) Producer abandons the Generating Facility. PG&E shall deem the Generating Facility to be abandoned if PG&E determines, in its sole opinion, the Generating Facility is non-operational and Producer does not provide a substantive response to PG&E Notice of its intent to terminate this Agreement as a result of Producer's apparent abandonment of the Generating Facility affirming Producer's intent and ability to continue to operate the Generating Facility.
 - (e) Producer makes a change to the physical configuration of the Generating Facility, as declared in Section 2 and Appendix A of this Agreement.
- 4.3 Notwithstanding any other provisions of this Agreement, PG&E shall have the right to unilaterally file with the Commission, pursuant to the Commission's rules and regulations, an application to terminate this Agreement.
- 4.4 Any agreements attached to and incorporated into this Agreement shall terminate concurrently with this Agreement unless the Parties have agreed otherwise in writing.

5. GENERATING FACILITY AND OPERATING REQUIREMENTS

- 5.1 Except for that energy delivered to PG&E's Distribution System, electric energy produced by Producer's Generating Facility shall be used solely to serve electrical loads connected to the electric service account that PG&E uses to interconnect Producer's Generating Facility (or, where permitted under Section 218 of the PUC, the electric loads of an on-site or neighboring party lawfully connected to Producer's Generating Facility through Producer's circuits). Producer shall not use the Generating Facility to serve electrical loads that will cause Producer to be

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considered an "electrical corporation" as such term is used in Section 218 of the California Public Utilities Code.

- 5.2 Unless otherwise agreed upon in writing by the Parties, this Agreement does not provide for, nor otherwise require PG&E to purchase, transmit, distribute, or store the electrical energy produced by Producer's Generating Facility.
- 5.3 Producer is responsible for operating the Generating Facility in compliance with all of PG&E's tariffs, including but not limited to PG&E's Rule 21 and applicable NEM tariff schedules, and applicable safety and performance standards established by the National Electric Code, Institute of Electrical and Electronic Engineers, accredited testing laboratories such as Underwriters Laboratories, rules of the Commission regarding safety and reliability, and any other regulations and laws governing the Interconnection of the Generating Facility.
- 5.4 Producer shall: (a) maintain the Generating Facility and Interconnection Facilities in a safe and prudent manner and in conformance with all applicable laws and regulations including, but not limited to, Section 5.3, and (b) obtain any governmental authorizations and permits required for the construction and operation of the Generating Facility and Interconnection Facilities. Producer shall reimburse PG&E for any and all losses, damages, claims, penalties, or liability it incurs as a result of Producer's failure to obtain or maintain any governmental authorizations and permits required for construction and operation of Producer's Generating Facility.
- 5.5 Producer shall not commence parallel operation of the Generating Facility until PG&E has provided express written approval. Such approval shall normally be provided per the timelines established by the applicable PUC 2827 section, or by Rule 21. Such approval will be provided after PG&E's receipt of: (1) a completed *Generating Facility Interconnection Application* (Form 79-974) including all supporting documents and payments as described in the Application; (2) any required NEM supplemental application forms; (3) a signed and completed Agreement; (4) a copy of the Producer's final inspection clearance from the governmental authority having jurisdiction over the Generating Facility; and (5) submission of all applicable payments for reviews, studies, Interconnection Facilities, and Distribution System Modifications. Such approval will not be unreasonably withheld. PG&E shall have the right to have representatives present at the Commissioning Test as defined in Rule 21. Producer shall notify PG&E at least five (5) business days prior to the initial testing.
- 5.6 In no event shall the delivery of the maximum electric power to PG&E's Distribution System exceed the amount or other limitations specified in Section 2 and Appendix A of this Agreement. If Producer does not regulate its Generating Facility in compliance with the limitations set forth in this Agreement, PG&E may require Producer to disconnect its Generating Facility from PG&E's Distribution System until Producer demonstrates to PG&E's sole satisfaction that Producer has taken adequate measures to regulate the output of its Generating Facility and control its deliveries of electric power to PG&E. Further, should PG&E determine that Producer's operation of the Generating Facility is causing an unsafe condition or is adversely affecting PG&E's ability to utilize its Distribution System in any manner, even if Producer's deliveries of electric power to PG&E's Distribution System are within the limitations specified in this Agreement, PG&E may require Producer to temporarily or permanently reduce or cease deliveries of electric power to PG&E's

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Distribution System. Alternatively, the Parties may agree to other corrective measures so as to mitigate the effect of electric power flowing from the Generating Facility to PG&E's Distribution System. Producer's failure to comply with the terms of this Section shall constitute a material breach of this Agreement and PG&E may initiate termination in accordance with the terms of Section 4.2(b).

- 5.7 Producer shall not deliver reactive power to PG&E's Distribution System unless the Parties have agreed otherwise in writing.
- 5.8 The Generating Facility shall be operated with all of Producer's Protective Functions in service whenever the Generating Facility is operated in parallel with PG&E's Distribution System. Any deviation from these requirements may occur only when the Parties have agreed to such deviations in writing.
- 5.9 If Producer declares that its Generating Facility meets the requirements for "Cogeneration" as such term is used in Section 218.5 of the PUC (or any successor definition of "Cogeneration") ("Cogeneration Requirements"), Producer warrants that, beginning on the date of Initial Operation and continuing throughout the term of this Agreement, its Generating Facility shall continue to meet such Cogeneration Requirements, per Appendix D of this Agreement.

6. INTERCONNECTION FACILITIES

- 6.1 Producer and/or PG&E, as appropriate, shall provide Interconnection Facilities that adequately protect PG&E's Distribution System, personnel, and other persons from damage or injury, which may be caused by the operation of Producer's Generating Facility.
- 6.2 Producer shall be solely responsible for the costs, design, purchase, construction, operation, and maintenance of the Interconnection Facilities that Producer owns.
- 6.3 If the provisions of PG&E's Rule 21, or any other tariff or rule approved by the Commission, requires PG&E to own and operate a portion of the Interconnection Facilities, Producer and PG&E shall promptly execute an Special Facilities Agreement that establishes and allocates responsibility for the design, installation, operation, maintenance, and ownership of the Interconnection Facilities. This Special Facilities Agreement shall be attached to and made a part of this Agreement as Appendix C.
- 6.4 The Interconnection Facilities may include Net Generation Output Metering for determination of standby charges and applicable non-bypassable charges, and/or other meters required for PG&E's administration and billing pursuant to PG&E's tariffs for net energy metering.

7. LIMITATION OF LIABILITY

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Each Party's liability to the other Party for any loss, cost, claim, injury, liability, or expense, including reasonable attorney's fees, relating to or arising from any act or omission in its performance of this agreement, shall be limited to the amount of direct damage actually incurred. In no event shall either Party be liable to the other Party for any indirect, special, consequential, or punitive damages of any kind whatsoever.

8. INSURANCE

8.1 In connection with Producer's performance of its duties and obligations under this Agreement, Producer shall maintain, during the term of this Agreement, general liability insurance with a combined single limit of not less than:

- (a) Two million dollars (\$2,000,000) for each occurrence if the Gross Nameplate Rating of Producer's Generating Facility is greater than one hundred (100) kW;
- (b) One million dollars (\$1,000,000) for each occurrence if the Gross Nameplate Rating of Producer's Generating Facility is greater than twenty (20) kW and less than or equal to one hundred (100) kW; and
- (c) Five hundred thousand dollars (\$500,000) for each occurrence if the Gross Nameplate Rating of Producer's Generating Facility is twenty (20) kW or less.
- (d) Two hundred thousand dollars (\$200,000) for each occurrence if the Gross Nameplate Rating of Producer's Generating Facility is ten (10) kW or less and Producer's Generating Facility is connected to an account receiving residential service from PG&E.

Such general liability insurance shall include coverage for "Premises-Operations, Owners and Contractors Protective, Products/Completed Operations Hazard, Explosion, Collapse, Underground, Contractual Liability, and Broad Form Property Damage including Completed Operations."

8.2 The general liability insurance required in Section 8.1 shall, by endorsement to the policy or policies, (a) include PG&E as an additional insured; (b) contain a severability of interest clause or cross-liability clause; (c) provide that PG&E shall not by reason of its inclusion as an additional insured incur liability to the insurance carrier for payment of premium for such insurance; and (d) provide for thirty (30) calendar days' written notice to PG&E prior to cancellation, termination, alteration, or material change of such insurance.

8.3 If Producer's Generating Facility employs the Constituent Generator Groups of solar and wind co-metering (50 kW or greater), as defined in PU Code section 2827, the requirements of Section 8.1 shall be waived. However, to the extent that Producer has currently in force Commercial General Liability or Personal (Homeowners's) Liability insurance, Producer agrees that it will maintain such insurance in force for the duration of this Agreement in no less than amounts

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currently in effect. PG&E shall have the right to inspect or obtain a copy of the original policy or policies of insurance prior to commencing operations. Such insurance shall provide for thirty (30) calendar days written notice to PG&E prior to cancellation, termination, alteration, or material change of such insurance.

- 8.4 Evidence of the insurance required in Section 8.2 shall state that coverage provided is primary and is not in excess to or contributing with any insurance or self-insurance maintained by PG&E.
- 8.5 Producer agrees to furnish the required certificates and endorsements to PG&E prior to Initial Operation. PG&E shall have the right to inspect or obtain a copy of the original policy or policies of insurance.
- 8.6 If Producer is self-insured with an established record of self-insurance, Producer may comply with the following in lieu of Sections 8.1 through 8.4:
- (a) Producer shall provide to, PG&E, at least thirty (30) calendar days prior to the date of Initial Operation, evidence of an acceptable plan to self-insure to a level of coverage equivalent to that required under Section 8.1.
 - (b) If Producer ceases to self-insure to the level required hereunder, or if Producer are unable to provide continuing evidence of Producer's ability to self-insure, Producer agrees to immediately obtain the coverage required under Section 8.1.
- 8.7 All insurance certificates, statements of self insurance, endorsements, cancellations, terminations, alterations, and material changes of such insurance shall be issued and submitted to the following:

Pacific Gas and Electric Company
Attention: Manager, Generation Interconnection Services
PO Box 770000
Mail Code N7L
San Francisco, California 94177

9. NOTICES

- 9.1 Any written notice, demand, or request required or authorized in connection with this Agreement ("Notice") shall be deemed properly given if delivered in person or sent by first class mail, postage prepaid, to the address specified below:

If to PG&E: Pacific Gas and Electric Company
Attention: Manager, Generation Interconnection Services
P.O. Box 770000
Mail Code N7L
San Francisco, California 94177

If to Producer: Producer Name: _____
Address: _____

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City: _____
Phone: () _____
FAX: () _____

9.2 A Party may change its address for Notices at any time by providing the other Party Notice of the change in accordance with Section 9.1.

9.3 The Parties may also designate operating representatives to conduct the daily communications, which may be necessary or convenient for the administration of this Agreement. Such designations, including names, addresses, and phone numbers may be communicated or revised by one Party's Notice to the other.

10. REVIEW OF RECORDS AND DATA

10.1 PG&E shall have the right to review and obtain copies of Producer's operations and maintenance records, logs, or other information such as, unit availability, maintenance outages, circuit breaker operation requiring manual reset, relay targets and unusual events pertaining to Producer's Generating Facility or its interconnection with PG&E's Distribution System.

10.2 Producer authorizes to release to the California Energy Commission (CEC) information regarding Producer's facility, including customer name, location, size, and operational characteristics of the unit, as requested from time to time pursuant to the CEC's rules and regulations.

11. ASSIGNMENT

Producer shall not voluntarily assign its rights nor delegate its duties under this Agreement without PG&E's written consent. Any assignment or delegation Producer makes without PG&E's written consent shall not be valid. PG&E shall not unreasonably withhold its consent to Producer's assignment of this Agreement.

12. NON-WAIVER

None of the provisions of this Agreement shall be considered waived by a Party unless such waiver is given in writing. The failure of a Party to insist in any one or more instances upon strict performance of any of the provisions of this Agreement or to take advantage of any of its rights hereunder shall not be construed as a waiver of any such provisions or the relinquishment of any such rights for the future, but the same shall continue and remain in full force and effect.

**GENERATING FACILITY INTERCONNECTION AGREEMENT
(MULTIPLE TARIFF)
PACIFIC GAS AND ELECTRIC COMPANY**

13. GOVERNING LAW, JURISDICTION OF COMMISSION, INCLUSION OF PG&E's TARIFF SCHEDULES AND RULES

- 13.1 This Agreement shall be interpreted, governed, and construed under the laws of the State of California as if executed and to be performed wholly within the State of California without giving effect to choice of law provisions that might apply to the law of a different jurisdiction.
- 13.2 This Agreement shall, at all times, be subject to such changes or modifications by the Commission as it may from time to time direct in the exercise of its jurisdiction.
- 13.3 The interconnection and services provided under this Agreement shall at all times be subject to the terms and conditions set forth in the Tariff Schedules and Rules applicable to the electric service provided by, PG&E, which Tariff Schedules and Rules are hereby incorporated into this Agreement by this reference.
- 13.4 Notwithstanding any other provisions of this Agreement, PG&E shall have the right to unilaterally file with the Commission, pursuant to the Commission's rules and regulations, an application for change in rates, charges, classification, service, tariff or rule or any agreement relating thereto.

14. AMENDMENT AND MODIFICATION

This Agreement can only be amended or modified in writing, signed by both Parties.

15. ENTIRE AGREEMENT

This Agreement, including any incorporated Tariff Schedules and rules, contains the entire agreement and understanding between the Parties, their agents, and employees as to the subject matter of this Agreement. Each party also represents that in entering into this Agreement, it has not relied on any promise, inducement, representation, warranty, agreement or other statement not set forth in this Agreement or in the incorporated tariff schedules and rules.

16. SIGNATURES

IN WITNESS WHEREOF, the Parties hereto have caused two originals of this Agreement to be executed by their duly authorized representatives. This Agreement is effective as of the last date set forth below.

PRODUCER'S NAME

PACIFIC GAS AND ELECTRIC COMPANY

By: _____
Name: _____
Title: _____
Date: _____

By: _____
Name: _____
Title: _____
Date: _____

GENERATING FACILITY INTERCONNECTION AGREEMENT
(ELIGIBLE/NON-ELIGIBLE NEM GENERATING FACILITY EXPORT)
PACIFIC GAS AND ELECTRIC COMPANY

APPENDIX A

DESCRIPTION OF GENERATING FACILITY
AND SINGLE-LINE DIAGRAM,
(Provided by Producer)

(Note: The Description of the Generating Facility should include, but not limited to, for each of the technology types of generation: spatial configuration, net and gross nameplate ratings, manufacturer, if the generators are certified under Rule 21, protection equipment, and intended mode of operation (i.e. non-export: export up to 2 seconds; inadvertent export: export between 2 seconds and 60 seconds; and continuous export: export greater than 60 seconds). Additionally points of interconnection with PG&E, as well as locations and type of protection equipment and disconnect switches should be identified.

GENERATING FACILITY INTERCONNECTION AGREEMENT
(MULTIPLE TARIFF)
PACIFIC GAS AND ELECTRIC COMPANY

APPENDIX B
RULES "2" AND "21"

(Note: PG&E's electric Rules "2" and "21" may be subject to such changes or modifications by the Commission as the Commission may, from time to time, direct in the exercise of its jurisdiction. PG&E's tariffs, including Rules "2" and "21" can be accessed via the PG&E website at www.pge.com/tariffs. Upon request, PG&E can provide copies to Producer of Rules "2" and "21.")

**GENERATING FACILITY INTERCONNECTION AGREEMENT
(MULTIPLE TARIFF)
PACIFIC GAS AND ELECTRIC COMPANY**

**APPENDIX C
(If Applicable)
RULE 21 "SPECIAL FACILITIES" AGREEMENT
(Formed between the Parties)**

**GENERATING FACILITY INTERCONNECTION AGREEMENT
(MULTIPLE TARIFF)
PACIFIC GAS AND ELECTRIC COMPANY**

**APPENDIX D
(When applicable)**

PRODUCER'S WARRANTY THAT THE GENERATING FACILITY IS A "COGENERATION FACILITY" PURSUANT TO SECTION 218.5 OF THE CALIFORNIA PUBLIC UTILITIES CODE

For the purpose of securing the Competition Transition Charge exemption available under Section 372 of the PU Code, Producer hereby declares that the Generating Facility meets the requirements for "Cogeneration" as such term is used in Section 218.5 of the PU Code ("Cogeneration Requirements").

Producer warrants that, beginning on the date of Initial Operation and continuing throughout the term of this Agreement, the Generating Facility shall continue to meet the Cogeneration Requirements. If Producer becomes aware that its Generating Facility has ceased to meet the Cogeneration Requirements, Producer shall promptly provide PG&E with Notice of such change pursuant to Section 9.1 of the Agreement. If at any time during the term of this Agreement PG&E determines in its sole discretion that Producer's Generating Facility may no longer meet the Cogeneration Requirements, PG&E may require Producer to provide evidence that the Generating Facility continues to meet the Cogeneration Requirements within 15 business days of PG&E's request for such evidence. Additionally, PG&E may periodically (typically, once per year) inspect Producer's Generating Facility and/or require documentation from Producer to monitor the Generating Facility's compliance with the Cogeneration Requirements. If PG&E determines in its sole judgment that Producer either failed to provide evidence in a timely manner or that it provided insufficient evidence that its Generating Facility continues to meet the Cogeneration Requirements, then the Cogeneration status of the Generating Facility shall be deemed ineffective until such time as Producer again demonstrates to PG&E's reasonable satisfaction that the Generating Facility meets the requirements for a Cogeneration facility (the "Cogeneration Status Change").

PG&E shall revise its records and the administration of this Agreement to reflect the Cogeneration Status Change and provide Notice to Producer of the Cogeneration Status Change pursuant to Section 9.1 of this Agreement. Such Notice shall specify the effective date of the Cogeneration Status Change. This date shall be the first day of the calendar year for which PG&E determines in its sole discretion that the Generating Facility first ceased to meet the Cogeneration Requirements. PG&E shall invoice the Producer's electric service account through which the Generating Facility is Interconnected with PG&E's Distribution System for Competition Transition Charges ("CTCs") that were not previously billed during the period between the effective date of the Status Change and the date of the Notice in reliance upon Producer's representations that the Generating Facility complied with the Cogeneration Requirements and therefore was eligible for the exemption from CTCs available under Section 372 of the PU Code.

Any amounts to be paid or refunded by Producer, as may be invoiced by PG&E pursuant to the terms of this warranty, shall be paid to PG&E within 30 days of Producer's receipt of such invoice.

**GENERATING FACILITY INTERCONNECTION AGREEMENT
(MULTIPLE TARIFF)
PACIFIC GAS AND ELECTRIC COMPANY**

**APPENDIX E
(When applicable)**

**PRODUCER'S WARRANTY THAT THE GENERATING FACILITY IS A "DISTRIBUTED ENERGY
RESOURCES GENERATION" FACILITY PURSUANT TO SECTION 353.1 OF THE
CALIFORNIA PUBLIC UTILITIES CODE**

For the purpose of securing the tariff charge exemption available under Section 353.3 of the PU Code, Producer hereby declares that the Generating Facility meets the requirements for "Distributed Energy Resources Generation" as such term is used in Section 353.1 of the PU Code ("DERG Requirements").

Producer warrants that, beginning on the date of Initial Operation and continuing throughout the term of this Agreement, its Generating Facility shall continue to meet the DERG Requirements. If Producer becomes aware that the Generating Facility has ceased to meet the DERG Requirements, Producer shall promptly provide PG&E with Notice of such change pursuant to Section 9.1 of the Agreement. If at any time during the term of this Agreement PG&E determines in its sole discretion that Producer's Generating Facility may no longer meet the DERG Requirements, PG&E may require Producer to provide evidence that the Generating Facility continues to meet the DERG Requirements within 15 business days of PG&E's request for such evidence. Additionally, PG&E may periodically (typically, once per year) inspect Producer's Generating Facility and/or require documentation from Producer to monitor the Generating Facility's compliance with the DERG Requirements. If PG&E determines in its sole judgment that Producer either failed to provide evidence in a timely manner or that it provided insufficient evidence that its Generating Facility continues to meet the DERG Requirements, then the Distributed Energy Resources Generation status of the Generating Facility shall be deemed ineffective until such time as Producer again demonstrates to PG&E's reasonable satisfaction that the Generating Facility meets the requirements for a Distributed Energy Resources Generation facility (the "DERG Status Change").

PG&E shall revise its records and the administration of this Agreement to reflect the DERG Status Change and provide Notice to Producer of the DERG Status Change pursuant to Section 9.1 of this Agreement. Such Notice shall specify the effective date of the DERG Status Change. This date shall be the first day of the calendar year for which PG&E determines in its sole discretion that the Generating Facility first ceased to meet the DERG Requirements. PG&E shall invoice the Producer electric service account through which the Generating Facility is Interconnected with PG&E's Distribution System for any tariff charges that were not previously billed during the period between the effective date of the DERG Status Change and the date of the Notice in reliance upon Producer's representations that the Generating Facility complied with the DERG Requirements and therefore was eligible for the exemption from tariff charges available under Section 353.3 of the PU Code.

Any amounts to be paid or refunded by Producer, as may be invoiced by PG&E pursuant to the terms of this warranty, shall be paid to PG&E within 30 days of Producer's receipt of such invoice.

[illegible]

**GENERATING FACILITY INTERCONNECTION AGREEMENT
(MULTIPLE TARIFF)
PACIFIC GAS AND ELECTRIC COMPANY**

APPENDIX F

(When applicable)

**PRODUCER'S WARRANTY THAT THE GENERATING FACILITY IS
AN ELIGIBLE BIOGAS ELECTRICAL GENERATING FACILITY
PURSUANT TO SECTION 2827.9 OF THE CALIFORNIA PUBLIC UTILITIES CODE**

Producer has declared that the Generating Facility meets the requirements for an "Eligible Biogas Electrical Generating Facility", as defined in Section 2827.9 of the California Public Utilities Code. ("Eligibility Requirements").

Producer warrants that, beginning on the date of Initial Operation and continuing throughout the term of this Agreement, its Generating Facility shall continue to meet the Eligibility Requirements. If Producer becomes aware that the Generating Facility has ceased to meet the Eligibility Requirements, Producer shall promptly provide PG&E with Notice of such change pursuant to Section 9.1 of the Agreement. If at any time during the term of this Agreement PG&E determines in its sole discretion that Producer's Generating Facility may no longer meet the Eligibility Requirements, PG&E may require Producer to provide evidence that the Generating Facility continues to meet the Eligibility Requirements within 15 business days of PG&E's request for such evidence. Additionally, PG&E may periodically (typically, once per year) inspect Producer's Generating Facility and/or require documentation from Producer to monitor the Generating Facility's compliance with the Eligibility Requirements. If PG&E determines in its sole judgment that Producer either failed to provide evidence in a timely manner or that it provided insufficient evidence that its Generating Facility continues to meet the Eligibility Requirements, then the Distributed Energy Resources Generation status of the Generating Facility shall be deemed ineffective until such time as Producer again demonstrates to PG&E's reasonable satisfaction that the Generating Facility meets the requirements for a Distributed Energy Resources Generation facility (the "Eligibility Status Change").

PG&E shall revise its records and the administration of this Agreement to reflect the Eligibility Status Change and provide Notice to Producer of the Eligibility Status Change pursuant to Section 9.1 of this Agreement. Such Notice shall specify the effective date of the Eligibility Status Change. This date shall be the first day of the calendar year for which PG&E determines in its sole discretion that the Generating Facility first ceased to meet the Eligibility Requirements. PG&E shall invoice the Producer for any tariff charges that were not previously billed during the period between the effective date of the Eligibility Status Change and the date of the Notice in reliance upon Producer's representations that the Generating Facility complied with the Eligibility Requirements and therefore was eligible for the rate treatment available under the Net Energy Metering provisions of PG&E's Schedule NEM-BIO, Experimental Biogas Net Energy Metering.

Any amounts to be paid or refunded by Producer, as may be invoiced by PG&E pursuant to the terms of this warranty, shall be paid to PG&E within 30 days of Producer's receipt of such invoice.